

REMARKS

This responds to the Office Action mailed on May 18, 2007.

Claims 1 and 34-36 are amended, and claims 2-22 have been cancelled. As a result, claims 1 and 34-36 are now pending in this application.

The subject matter of claims 34-36 can be found at various places in the specification including, for example, at the originally-filed claim 32 and at page 12, line 26 to page 13, line 3. No new matter has been introduced by way of amendments to claims 1 and 34-36.

Applicants request reconsideration and withdrawal of the rejections in view of the amendments above and the remarks below.

§101 Rejection of the Claims

The Examiner rejected claims 34-36 under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. More specifically, the Examiner alleged that claims 34-36 do not sufficiently distinguish over proteins (variants) as they exist naturally. Applicants' amendment to the claims moot the § 101 rejection of these claims. Accordingly, withdrawal of the § 101 rejection is respectfully requested.

§112 Rejection of the Claims

The Examiner rejected claims 34-36 under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement. The Examiner alleged that the claims encompass undefined and uncharacterized protein variants because they do not limit the variants to have just a single amino acid change at the specified position within the full length of SEQ ID NO: 1, but encompass a genus of proteins and fragments that can have multiple amino acid changes at any position of SEQ ID NO: 1 and fragments thereof. Applicants' amendments to the claims moot the § 112 rejection of these claims. Accordingly, withdrawal of the § 112 rejection is respectfully requested.

§102 Rejection of the Claims

The Examiner rejected claim 1 under 35 U.S.C. § 102(b) as allegedly anticipated by Scherl-Mostageer *et al.*, Oncogene 20: 4402-4408 (2001). The Examiner stated that although the sequence shown in Figure 2 of the Scherl-Mostageer *et al.* reference (herein the Scherl-Mostageer sequence) is not identical to the claimed SEQ ID NO: 1, the Scherl-Mostageer sequence was corrected on March 7, 2006, and the corrected sequence is 100 % identical to the claimed sequence. Applicants respectfully traverse this rejection.

The Scherl-Mostageer sequence has not been corrected as asserted by the Examiner. The Examiner cited Exhibit C, which was provided with the Official Action mailed December 5, 2006, to support the assertion that the Scherl-Mostageer sequence had been corrected on March 7, 2006. Applicants respectfully submit that this is an incorrect interpretation of Exhibit C. Exhibit C indicates that on March 7, 2006, the Scherl-Mostageer sequence (identified as Q96QU7 in line 5 of Exhibit C) was integrated into the UniProtKB/Swiss-Prot database. The UniProt/Swiss-Prot is a non-redundant database in which sequences that differ slightly but are considered to represent the same protein are grouped together in one entry. *See* Exhibit I, E-mail of June 20, 2007 from Elisabeth Gasteiger of the Swiss Institute of Bioinformatics, bolded text on page 1-2, enclosed herein for the Examiner's convenience.

The Scherl-Mostageer sequence is accessible at Genbank Accession number AY026461 (full-length cDNA sequence) and AAK02058.1 (the protein translation). The Genbank entry for both the cDNA sequence and the protein translation indicate that the Scherl-Mostageer entry had not been modified since August 17, 2001. Copies of GenBank Accession No. AY026461 and AAK02058.1 along with their revision histories are enclosed as Exhibit II and III, respectively

An alignment of Applicants' SEQ ID NO: 1 with the Scherl-Mostageer sequence (AAK02058.1) indicates that the Scherl-Mostageer sequence differs from SEQ ID NO: 1 at two positions. *See* Exhibit IV – Sequence Alignment of SIMA135 and GenBank Accession No. AAK02058.1. Specifically, the Scherl-Mostageer sequence identifies glutamine (Q) and asparagine (N) as amino acid 525 and 827, respectively. In contrast, SEQ ID NO: 1 has arginine (R) and serine (S) at these same positions. Thus, the Scherl-Mostageer sequence does not anticipate claim 1.

The Examiner also rejected claims 34 and 36 under 35 U.S.C. § 102(b) as allegedly anticipated by Tang *et al.* (WO 200270539A2). More specifically, the Examiner alleged that SEQ ID NO: 1600 of Tang *et al.*, which differs from Applicants' SEQ ID NO: 1 at two positions, amino acids 525 and 827, anticipates claims 34 and 36. The amendments to claims 34 and 36 moot the rejection of these claims.

Accordingly, Applicants request reconsideration and withdrawal of the § 102 rejections.

Supplemental Information Disclosure Statement

Applicant submits a Supplemental Information Disclosure Statement herewith and requests consideration and acknowledgement thereof.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6913 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

Aug 17/07

By

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by U.S. MAIL, postage prepaid,
CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed *using the USPTO's electronic*
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2007. *alt*

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